

PATENT CLAIMS

1. A method for the computer-aided monitoring of process parameters of a manufacturing process of a physical object, object data which identify the physical object being assigned to various hierarchical levels, object data of various hierarchical levels being grouped to form hierarchical object data records, limit values for at least one process parameter being stored and respectively assigned to a hierarchical object data record, process data of the at least one process parameter, measured during the manufacture of physical objects, being stored and the hierarchical object data records corresponding to the object data being determined for physical objects manufactured;

in which method an unspecific value is stored for the hierarchical level if no specific value is stored in the object data record for the hierarchical level;

in which method the process data stored for the corresponding object data records are compared with the stored limit values for the corresponding object data records;

in the comparison, the hierarchical levels of the object data record of the stored process data being iteratively processed according to a predeterminable hierarchy in such a way that, starting from a highest hierarchical level, the next-lower hierarchical level is processed, and this is repeated until the processing has reached the lowest hierarchical level; and the unspecific value of a hierarchical level of the object data record being used if the value of the hierarchical level is not stored as a specific value.

2. The method as claimed in claim 1, in which the physical object is a wafer.

3. The method as claimed in claim 1 or 2, in which the hierarchical levels correspond to logistical levels of the manufacturing process.

4. The method as claimed in one of claims 1 to 3, in which unspecific limit values are stored for process parameters by using unspecific object data.

5. The method as claimed in one of claims 1 to 4, in which the values of the at least one process parameter are measured.

6. The method as claimed in one of claims 1 to 5, in which the hierarchical levels are sorted according to a predeterminable sorting criterion.

7. A device for the computer-aided monitoring of process parameters of a manufacturing process of a physical object, object data which identify the physical object being assigned to various hierarchical levels, object data of various hierarchical levels being grouped to form hierarchical object data records, limit values for at least one process parameter being stored and respectively assigned to a hierarchical object data record, process data of the at least one process parameter, measured during the manufacture of physical objects, being stored and the hierarchical object data records corresponding to the object data being determined for physical objects manufactured;

with a processor, which is set up in such a way that the following method steps can be carried out:

storing an unspecific value for the hierarchical level if no specific value is stored in the object data record for the hierarchical level;
comparing process data stored for the corresponding object data records with the stored limit values for the corresponding object data records;

iteratively processing the hierarchical levels of the object data record of the stored process data according to a predeterminable hierarchy in the comparison in such a way that, starting from a highest hierarchical level, the next-lower hierarchical level is processed, and this is repeated until the processing has reached the lowest hierarchical level and the

unspecific value of a hierarchical level of the object data record being used in the processing if the value of the hierarchical level is not stored as a specific value.

8. A computer-readable storage medium, in which a program for the monitoring of a manufacturing process of a physical object is stored, object data which identify the physical object being assigned to various hierarchical levels, object data of various hierarchical levels being grouped to form hierarchical object data records, limit values for at least one process parameter being stored and respectively assigned to a hierarchical object data record, process data of the at least one process parameter, measured during the manufacture of physical objects, being stored and the hierarchical object data records corresponding to the object data being determined for physical objects manufactured,

which program has the following method steps when it is run by a processor:

storing an unspecific value for the hierarchical level if no specific value is stored in the object data record for the hierarchical level;

comparing process data stored for the corresponding object data records with the stored limit values for the corresponding object data records;

iteratively processing the hierarchical levels of the object data record of the stored process data according to a predeterminable hierarchy in the comparison in such a way that, starting from a highest hierarchical level, the next-lower hierarchical level is processed, and this is repeated until the processing has reached the lowest hierarchical level, and the unspecific value of a hierarchical level of the object data record being used in the processing if the value of the hierarchical level is not stored as a specific value.

9. A computer program element for the monitoring of a manufacturing process of a physical object, object data which identify the physical object being assigned to various hierarchical levels, object data of various hierarchical levels being grouped to form hierarchical object data records, limit values for at least one process parameter being stored and respectively assigned to a hierarchical object data record, process data of the at least one process parameter, measured during the manufacture of physical objects, being stored and the hierarchical object data records corresponding to the object data being determined for physical objects manufactured,

which element has the following method steps when it is run by a processor:

storing an unspecific value for the hierarchical level if no specific value is stored in the object data record for the hierarchical level;

comparing process data stored for the corresponding object data records with the stored limit values for the corresponding object data records;

iteratively processing the hierarchical levels of the object data record of the stored process data according to a predeterminable hierarchy in the comparison in such a way that, starting from a highest hierarchical level, the next-lower hierarchical level is processed, and this is repeated until the processing has reached the lowest hierarchical level, and the unspecific value of a hierarchical level of the object data record being used in the processing if the value of the hierarchical level is not stored as a specific value.